Supporting farmers' learning and knowledge development through dialogue and digital technologies

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Abstract

Digital technologies are set to play an increasing role supporting farmers' learning and knowledge development. Web and blog sites, social media, mobile applications, decision support tools, email discussions and e-learning products are growing across the web to support rural learning about new products, groups, projects and organisations.

The role that these technologies play in supporting traditional rural learning and knowledge processes is not clear as these processes are often multi-faceted. A clearer understanding of these processes and of community expectations of technologies will guide the development of online systems that support wider participation and life-long learning for farmers.

The contribution of digital learning technologies to learning and knowledge development in the rural community depends on how well they match with traditional learning approaches. In farming, the extent that digital technologies ultimately contribute to improving farmer decisions, farm processes and outputs also depends on how well digital technologies match farmer learning approaches.

This UQG/DAFFQ study of farmers' learning and knowledge processes within a connected environment identifies aspects of farmers' learning that are important in the application of digital learning technologies. Exploratory case studies identified how 16 farmers used digital technologies and other learning sources as part of their learning about new farming technologies and processes.

Whilst most learning activities and progress took place in the non-connected (i.e. non-internet) world through having experiences and reflecting on and discussing these, some activities in the digital world facilitated this. Online activities had supported and facilitated learning for well over half of participants. This occurred through online dialogue (largely 1 on 1) with facilitators and with other farmers in relation to applying farm technologies. This dialogue and reading case studies of other farmer's experiences on the learning topic assisted participants in developing ideas for action.

Participants' learning approaches were very different to most online information and learning resources (such as website content). Farmer learning processes were based around having experiences and reflecting on and sharing these. Participants required a strong understanding of the physical aspects of a topic and the process of accessing new information to support learning was often social. These learning approaches strongly contributed to participants' beliefs that their learning was highly specific and they therefore saw their learning as very isolated.

An online survey of 126 online Queensland farmers validated these learning approaches. Almost 90% of the survey participants looked to online technologies to extend their networks to support their learning. Participants expected that online networks of contacts could support their learning through facilitation and sharing of ideas, planning and reflecting, and to help reduce their isolation in learning.

The extent to which digital learning technologies match with traditional rural learning will contribute to rural community participation in online learning. Online initiatives that assist users to develop networks of contacts, and allow searching for and dialogue with others with similar projects will assist learners to maximise the learning value from digital technologies.